CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.13/BTR/CSR.12/700b/CEMENT/2014-15

Date: 13.12.2014

TEST REPORT ON CEMENT

* CUSTOMER	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
*AGENCY	:	**Mr. B.T. Ravikumar,** No-180, 3rd Main, H.V.R. Layout, Magadi Road, Bangalore – 560 079.
*NAME OF THE WORK	:	Improvements to Roads and Drains in 1st Cross Road and Church Road, at Santhoshnagara in Ward No.13 in SSD, BBMP, Bangalore.
REFERENCE	:	BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 10.12.2014
SAMPLE ID	:	Cement
SAMPLE RECEIVED ON	:	10.12.2014
PERIOD OF TESTING	:	10.12.2014 to 13.12.2014

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	28.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	170 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	465 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

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*Information is furnished by the Customer/Representative.

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⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

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Job No.: CTCE/BBMP/W.No.13/BTR/CSR.12/700b/SAND-Gradation/2014-15 : 13.12.2014

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. B.T. Ravikumar,**
No-180, 3rd Main, H.V.R. Layout, Magadi Road, Bangalore – 560 079.

*** Name of Work** : Improvements to Roads and Drains in 1st Cross Road and Church Road, at Santhoshnagara in Ward No.13 in SSD, BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 10.12.2014

Technical Reference : IS : 2386 Part 1 - 1963 RA-2007

Sample ID : Fine Aggregates

Sample Received on : 10.12.2014

Date of Testing : 13.12.2014

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	92.74	90-100	90-100	90-100	95-100
2.36	79.81	60-95	75-100	85-100	95-100
1.18	50.97	30-70	55-90	75-100	90-100
600 Micron	19.41	15-34	35-59	60-79	80-100
300 Micron	9.13	5-20	8-30	12-40	15-50
150 Micron	3.65	0-10	0-10	0-10	0-15

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* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-I specific limits.

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Job No.: CTCE/BBMP/W.No.13/BTR/CSR.12/700b/AGG/GR/2014-15 : 13.12.2014

TEST REPORT ON COARSE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. B.T. Ravikumar,**
No-180, 3rd Main, H.V.R. Layout, Magadi Road, Bangalore – 560 079.

*** Name of Work** : Improvements to Roads and Drains in 1st Cross Road and Church Road, at Santhoshnagara in Ward No.13 in SSD, BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 10.12.2014

Technical Reference : IS : 2386 Part 1 -1963 RA-2007

Sample ID : Coarse Aggregates (40mm)

Sample Received on : 10.12.2014

Date of Testing : 13.12.2014

Total Wt. of Aggregates in gms= **10000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	96.88	95-100	85-100
20	54.30	30-70	0-20
10	26.61	10-35	0-5
4.75	3.10	0-5	-

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13.12.14

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits.

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T-2377

Job No.: CTCE/BBMP/W.No.13/BTR/CSR.12/700b/CC Solid Block/2014-15 : 16.12.2014

TEST REPORT ON SOLID CONCRETE BLOCKS

* Customer : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

* Agency : **Mr. B.T. Ravikumar,**
No-180, 3rd Main, H.V.R. Layout, Magadi Road, Bangalore – 560 079.

* Name of the Work : Improvements to Roads and Drains in 1st Cross Road and Church Road, at Santhoshnagara in Ward No.13 in SSD, BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 10.12.2014

Sample Received on : 10.12.2014

Date of Testing : 16.12.2014

Size of Blocks : 400mm x 200mm x 200mm

Cross Sectional Area : 80000 mm^2

Technical Reference : IS: 2185 (Part 1) - 2005

No. of Blocks Tested : 08

Sl.No.	Block ID	Wt. in Kg	Failure load (KN)	Compressive strength (N/mm^2)	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	26.25	259.2	3.24	Minimum required Compressive Strength of Individual Units 3.20 N/mm^2
2	Block 2	24.58	261.5	3.27	
3	Block 3	25.69	263.7	3.30	
4	Block 4	26.53	258.3	3.23	
5	Block 5	25.48	257.4	3.22	
6	Block 6	24.72	260.8	3.26	
7	Block 7	26.53	262.5	3.28	
8	Block 8	25.27	261.3	3.27	

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16.12.14

*Information is furnished by the Customer/Representative.

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Job No.: CTCE/BBMP/W.No.13/BTR/CSR.12/700b/CC Solid Block/2014-15 : 16.12.2014

TEST REPORT ON SOLID CONCRETE BLOCKS

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Mr. B.T. Ravikumar,** No-180, 3rd Main, H.V.R. Layout, Magadi Road, Bangalore – 560 079.
* Name of the Work	: Improvements to Roads and Drains in 1st Cross Road and Church Road, at Santhoshnagara in Ward No.13 in SSD, BBMP, Bangalore.
Reference	: BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 10.12.2014
Sample Received on	: 10.12.2014
Date of Testing	: 16.12.2014
Size of Blocks	: 400mm x 150mm x 200mm
Cross Sectional Area	: 60000 mm^2
Technical Reference	: IS: 2185 (Part 1) - 2005
No. of Blocks Tested	: 08

Sl.No.	Block ID	Wt. in Kg	Failure load (KN)	Compressive strength (N/mm^2)	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	24.63	196.3	3.27	Minimum required Compressive Strength of Individual Units 3.20 N/mm^2
2	Block 2	25.87	197.2	3.29	
3	Block 3	26.92	198.4	3.31	
4	Block 4	26.58	195.7	3.26	
5	Block 5	25.47	194.8	3.25	
6	Block 6	25.65	197.6	3.29	
7	Block 7	24.53	194.4	3.24	
8	Block 8	25.64	196.9	3.28	

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Job No.: CTCE/BBMP/W.No.13/BTR/Pre slab/2014-15

03.01.201

PRE CAST SLAB(CORE) TEST REPORT

Name of Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Name of Agency	:	**Mr. B.T. Ravikumar,** No-180, 3rd Main, H.V.R. Layout, Magadi Road, Bangalore – 560 079.
Name of work	:	Improvements to Roads and Drains in 1st Cross Road and Church Road, at Santhoshnagara in Ward No.13 in SSD, BBMP, Bangalore.
Referece	:	BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 10.12.2014
No.of Sample Tested	:	03
Date of Testing	:	03.01.2015
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Grade of Concrete	:	M_{20}

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalen Cube Compressiv Strength (N/mm^2)
1	50.00	81.00	0.406	2552.77	1.62	0.965	33.65	17.14	18.51	17.86	22.33
2	50.00	77.00	0.383	2533.25	1.54	0.955	32.25	16.42	17.74	16.94	21.18
3	50.00	80.00	0.397	2527.38	1.60	0.960	32.90	16.76	18.10	17.37	21.72

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3/1/2015

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Job No.: CTCE/BBMP/W.No.13/BTR/CSR.12/700b/CUBE/2014-15

27.01.2015

TEST REPORT ON CONCRETE CUBES

* Client	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Mr. B.T. Ravikumar,** No-180, 3rd Main, H.V.R. Layout, Magadi Road, Bangalore – 560 079.
* Name of the work	: Improvements to Roads and Drains in 1st Cross Road and Church Road, at Santhoshnagara in Ward No.13 in SSD, BBMP, Bangalore.
* Reference	: BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 10.12.2014
* Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{15}
Compressive Strength as o	: 28^{th} day
Sample Received on	: 26.01.2015

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	30.12.2014	27.01.2015	8.362	384.5	17.09
2	30.12.2014	27.01.2015	8.275	369.3	16.41
3	30.12.2014	27.01.2015	8.496	392.7	17.45

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